THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. A method of isolating a β (1-3) β (1-4) glucan from a milled cereal grain or a milled part of the cereal grain, comprising:

(i) extracting the milled cereal grain or the milled part of the cereal grain with an alkaline solution to produce an extract containing at least about 0.4 weight percent β (1-3) β (1-4) glucan;

(ii) removing insoluble material, and removing particulate material having a particle size of greater than about 0.2 μm from said extract to produce a purified extract;

(iii) adding from about 10% to about 25% (w/w) of a C_1-C_4 alcohol to the purified extract to precipitate the β (1-3) β (1-4) glucan, and

(iv) isolating the β(1-3) β(1-4) glucan.

2. The method of claim 1, wherein, in said step of adding (step iii), about 10% to about 20% (w/w) of an alcohol selected from the group consisting of methanol, ethanol and isopropanol, is used to precipitate the β (1-3) β (1-4) glucan from said purified extract.

3. The method of claim 2, wherein about 10% to about 20% (w/w) of ethanol is used to precipitate the β (1-3) β (1-4) glucan from said purified extract.

4. The method of claim 1, wherein, said step of removing particulate material comprises:

one, or more than one step of adding a flocculant, a coagulant or both a flocculant and a coagulant to said extract to coagulate particulate material having a particle

size of greater than about 0.2 μm, and removing coagulated material from said extract;

digesting starch material in said extract, and

filtering out particulate material having a particle size of greater than about 0.2 μm from said extract to produce a purified extract.

5. The method of claim 4, wherein, in said step of digesting, said starch material is digested with an enzyme.

6 The method of claim 5, wherein prior to digesting said starch material, said alkaline solution is neutralized.

7. The method of claim 6, wherein following the digestion of said starch material, said enzyme is inactivated.

8. The method of claim 7, wherein said enzyme is inactivated by acidifying the neutralized solution.

9. The method of claim 5, wherein said enzyme is an amylase.

10. The method of claim 9, wherein said amylase does not require a calcium cofactor.

11. The method of claim 1, wherein the cereal is selected from the group consisting of a cultivar of barley, a cultivar of oat, a cultivar of wheat, a cultivar of rye, a cultivar of sorghum, a cultivar of millet, and a cultivar of corn.

12. The method of claim 1, wherein the pH of the alkaline solution is from about 9 to about 10.

13. The method of claim 1, wherein said step of extracting (step i) is carried out over a period of from about 15 to about 45 minutes.

14. The method of claim 1, wherein said step of adding (step iii) is conducted at a temperature of from about 1°C to about 10°C.

15. The method of claim 1, further comprising one, or more than one step of dissolving the isolated β (1-3) β (1-4) glucan in an aqueous solution, precipitating the β (1-3) β (1-4) glucan by adding about 10% to about 25% (w/w) of the C_1-C_4 alcohol to the aqueous solution, and isolating the β (1-3) β (1-4) glucan.

16. A method of isolating a β (1-3) β (1-4) glucan from a milled cereal grain or a milled part of the cereal grain, comprising:

(i) extracting the milled cereal grain or the milled part of the cereal grain with an alkaline solution to produce an extract comprising at least about 0.4 weight percent β (1-3) β (1-4) glucan;

(ii) removing insoluble material, and removing particulate material having a particle size of greater than about 0.2 μm from said extract to produce a purified extract, wherein the step of removing particulate material comprises:

one, or more than one step of adding a flocculant, a coagulant or both a flocculant and a coagulant to said extract to coagulate particulate material having a particle size of greater than about 0.2 μm, and removing coagulated material from said extract;

enzymatically digesting starch material in said extract, and

filtering out particulate material having a particle size of greater than about 0.2 μm from said extract to produce the purified extract;

(iii) adding about 10% to about 25% (w/w) of a C_1-C_4 alcohol to the purified extract to precipitate the β(1-3) β(1-4) glucan, and

(iv) isolating the β(1-3) β(1-4) glucan.

17. A composition comprising a β (1-3) β (1-4) glucan, which has a purity of at least about 75%, and contains less than10% ash impurities, less than 10% protein impurities, and less than 5% lipid impurities.

18. The composition of claim 17, which has a clarity value of about 5 to about 100 NTU.

19. A composition comprising a β (1-3) β (1-4) glucan and from about 1% to about 40% by weight of a freezing point depressant.

20. The composition of claim 19, wherein the β (1-3) β (1-4) glucan is present in an amount of from about 1.2% to about 1.6% by weight.

21. The composition of claim 19, wherein the β (1-3) β (1-4) glucan is present in an amount of from about 1.2% to about 1.3% by weight.

22. The composition of claim 19, wherein the freezing point depressant is selected from the group consisting of glycerol, propylene glycol, butylene glycol and pentylene glycol.

23. The composition of claim 19, wherein the β (1-3) β (1-4) glucan is a β (1-3) β (1-4) glucan composition having a purity of at least about 75%, and containing less than10% ash impurities, less than 10% protein impurities, and less than 5% lipid impurities.

24. The composition of claim 23, wherein the β (1-3) β (1-4) glucan composition has a clarity of about 5 to about 100 NTU.